

Date: Wednesday, 3/8/2006 10:40:59 AM  
 User: Kim Johnston

## Process Sheet

16

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : R44 CARGO MIRROR  
 Job Number : 26137  
 Estimate Number : 10095  
 P.O. Number : N/A Part Number : D044715011  
 This Issue : 3/8/2006 S.O. No. : N/A Drawing Number : D3243REV A  
 Prsht Rev. : NC Project Number : N/A  
 First Issue : N/A Type : SMALL /MED FAB Drawing Revision : A  
 Previous Run : 24945 Material : Manufacture in multiples of 10  
 Written By : See LA COMMENT Below Due Date : 4/20/2006 Qty: 10 Um: Each  
 Checked & Approved By : 06.03.08  
 Comment : Est Rev:A 04.02/18 New issue KJ/JLM

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile & type labels per PPPD044-715-011 CHG001

DH 06/05/04 (12)

2.0 M6061T6S063 6061-T6 .063 Sheet



Comment: Qty.: 0.5359 sf(s)/Unit Total: 5.3592 sf(s)

Material: 6061-T6 (QQ-A-250/11) 0.063" thick(M6061T6S.063)Identify for D3244-1

Batch: M18556

3.0 SHEAR SHEAR



Comment: SHEAR

Cut blank: 6.600" x 12.00" grain along 12.000"

4.0 HAAS- Water jet HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1 Cut

1-Machine as per Folio EA385 and Dwg D3243 Stack of 10

Identify as D3243-1

prog Rev. A

Dwg Rev. A

M 06 05 02 (12)

5.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

M 06 05 02 (12)

1,399 - 1,439

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ~~DART~~ D844-75011 PAR #: UA Fault Category: Prod / Machine NCR: Yes No DQA: Yes Date: 06/05/26  
 QA: N/C Closed: Yes Date: 06.05.30

NCR: <u>26137</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06-05-04	4	Parts mixed with grain in wrong direction.	<u>AB</u> <u>06-05-04</u>	Scrap: replace parts and ensure grain was along the 11.920°.	<u>AB</u> <u>06-05-05</u> <u>SIS</u> <u>06-05-05</u> <u>06-05-11</u>	<u>2</u> <u>06-05-11</u>	<u>AB</u> <u>06-05-04</u>	<u>2</u> <u>06-05-04</u>
06/05/10	8	2 part were out of tolerance <u>0.30 inch</u> bent & cracked.	<u>AB</u> <u>06-05-10</u>	Scrap: destroy	<u>AB</u> <u>06-05-11</u>	<u>2</u> <u>06-05-11</u>	<u>AB</u> <u>06-05-11</u>	<u>2</u> <u>06-05-11</u>

NOTE: Date &amp; initial all entries

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Drawing Name: R44 CARGO MIRROR

Job Number: 26137

Part Number: D044715011

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC8

SECOND CHECK



06-05-10

Comment: SECOND CHECK

7.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



06-05-10

M.F.

Comment: SMALL & MEDIUM FAB RESOURCE 1

Deburr

~~06-05-02~~

(12)

8.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Bend as per Dwg D3243

SB 06/05/11

9.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Chemical Conversion Coat as per QSI 005 4.1

SAD 06:05:11 (10)

11.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

1-Powder Coat Black Sandtex (Ref: 4.3.5.7) as per QSI 005 4.3

a.m 06-05-15 (10)

12.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

13.0

FE032EF

Inserts



Comment: Qty.: 4.0000 Each(s)/Unit \* Total : 40.0000 Each(s)

Pick:

Qty Part Number

Description Batch

4 FE-032EF

Insert

M18486

1 D3243-1(Ref)

Bracket

B-26137

SAD 06:05:11 (10)

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Wednesday, 3/8/2006 10:40:59 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: R44 CARGO MIRROR

Job Number: 26137

Part Number: D044715011

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble as per Dwg d3243

SAD 06.05.11

(10)

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

16.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

17.0

D1048

Clamp



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch  
2 D1048 Clamp B24979 ✓

18.0

D1049

Saddle



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch  
2 D1049 Saddle B24980 ✓

19.0

D2010104

Mirror Arm 369/500



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch  
1 D2010-104 Arm B24060A1MCY B25641 9MCY ✓

20.0

D2011101

Mirror 6"



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch  
1 D2011-101 Mirror B24557 ✓

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Wednesday, 3/8/2006 10:40:59 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: R44 CARGO MIRROR

Job Number: 26137

Part Number: D044715011

Job Number:



Seq. #: Machine Or Operation: Description :

21.0 D3243041 Bracket Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D3243-041 Bracket B26137

*N/A* *used on w/o*

22.0 ALS41032130 Insert



Comment: Qty.: 4.0000 Each(s)/Unit Total: 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 ALS4-1032-130 Insert M18293

23.0 AN34A Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total: 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN3-4A Bolt M18310

24.0 AN526C1032R10 Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total: 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN526C1032R10 Screw M14741

25.0 AN960JD10L Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total: 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10L Washer M18235

*1/4/05/16 (10)*

26.0 QC4 INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

*C200105116 10*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 04/05/06  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



Date: Wednesday, 3/8/2006 10:41:00 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: R44 CARGO MIRROR

Job Number: 26137

Part Number: D044715011

Job Number:



Seq. #:

Machine Or Operation:

Description :

27.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D044-715-011

Location: FG 18

DEV. A

*Rev 16*

*(10)*

28.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

*SP 06/05/16*

*(10)*

Job Completion



*U 06-05-16*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

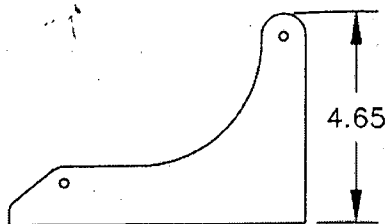
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

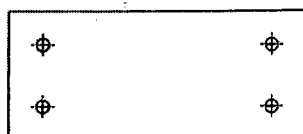




DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3243	REV. A SHEET 1 OF 1
DATE 04.01.09	TITLE BRACKET		SCALE 1:2
A	04.01.09	NEW ISSUE	



R0.188 (TYP)



D3243-1 BEND DETAIL/  
D3243-041 ASSEMBLY  
SCALE 1:4

INSTALL  
FE-032-EF INSERTS  
(4 PLACES)

2.75  $\pm 0.030$   
0.000

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 26137

**RELEASED**  
04.02.03

8.581  
8.206  
7.706

11.920  
11.420

Ø0.201  
(TYP 4  
PLACES)

Ø0.290  
(TYP 4  
PLACES)

1.375

5.273

3.714

0.500

0.000

0.750  
0.500  
0.000

GRAIN  
DIRECTION

4.214  
R0.25 (TYP)  
3.339  
R0.38 (TYP)  
5.494

R2.75  
(TYP)

D3243-1  
FLAT PATTERN

R0.50  
(TYP)

**D3243-041 BRACKET ASSEMBLY**  
**(D3243-1 BRACKET)**

- 1) MATERIAL: 6061-T6, 0.063 THICK  
(QQ-A-250/11, REF DART SPEC  
M6061T6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT  
PER DART QSI 005 4.1  
POWDER COAT BLACK (4.3.5.7) PER  
DART QSI 005 4.3
- 3) BREAK ALL SHARP EDGES 0.005 TO  
0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018  
UNLESS OTHERWISE NOTED

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Date: Thursday, 11/01/2007 2:52:48 PM  
 User: Linda Lacelle

## Process Sheet

Customer	: CC-DAR01 Dart Aerospace Ltd.	Drawing Name	: D044-715/D022-716 - ECN 900
Job Number	: 30248		
Estimate Number	: 10804		
P.O. Number	: N/A	Part Number	: Z_CUSTOM
This Issue	: 11/01/2007 S.O. No. : N/A	Drawing Number	: UPDATE PAPERWORK
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : OVERHEAD	Drawing Revision	: N/A
Previous Run	: 30247	Material	: N/A
Written By	: <u>                    </u>	Due Date	: 18/01/2007 Qty: 1 Um: Each
Checked & Approved By	: <u>                    </u>		
Comment	: <u>                    </u>		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

ADD NEW PAPERWORK TO KITS IN STOCK  
 EASA STC EASA IM.R.S.01253  
 EASE STC EASA IM.R.S.01254

D044-715-011

B26137 1X B27068 10 B29561 9

(22)

D022-716-011

B21220 9X

FINAL INSPECTION/W/O RELEASE

2.0	QC21
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Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



U 07.01.15